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A Syntactic Analysis of Clefts with Multiple Foci in English^{*†}SUZUKI Sayaka^{**}

Keywords: referentiality, multiple foci, absorption

本論文は、従来生成文法の枠組みにおいて不可能とされてきた英語の多重焦点分裂文が焦点要素の性質によっては可能であることを示し、その統語的メカニズムを提案することを目的とする。

英語では多重焦点分裂文が不可能である理由として Chomsky (1977)によると、焦点位置である CP-Spec には英語の場合、1つの要素の生起しか許されないため、そこに複数の焦点要素が生起する多重焦点分裂文は非文になると説明できる。

しかし、Delahunty (1981)、Nakajima (1994) 等では英語の多重焦点分裂文が観察されていることから、一定の条件下では多重焦点分裂文が許されることが予測される。そこで、これら先行研究を基に多重焦点が可能な場合と不可能な場合を精査したところ、焦点要素の性質によって決定されることが分かった。焦点要素には Rizzi (1990)、Cinque (1990) が提案する referentiality が関与していると分析でき、直接目的語、時・場所及び着点を表す句は referential という素性を有し、方法・道具・手段を表す句は non-referential であるが、分裂文において多重焦点が許される場合は、焦点句はすべて referential という素性を持っていることが明らかになった。

この分析を基に、英語分裂文の多重焦点の形成には Watanabe (2000) の absorption (素性吸収) に基づくメカニズムが関わっていると主張する。absorption は同じ素性をもっているもの同士で行われなければならないという制約がある。従って、referential という素性を持つ要素が焦点位置に複数生起した場合には、焦点に対応する referential feature の間で absorption が起こり、1つの要素となるため、1つの要素の生起のみ許す CP-Spec に生起できると考えられる。一方、多重焦点句に referential な句と non-referential な句が生起した場合は、素性の不一致により absorption が適用されず、結果として多重焦点が許されないと分析できる。

* 英語における多重焦点分裂文の統語的分析 (鈴木清香)

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このように、本論文は、英語分裂文における多重焦点句の性質を明らかにし、更に多重焦点の派生メカニズムに対して absorption を用いたメカニズムを提案した。

1 Introduction

In the literature, it has been observed that only one constituent can be focused in English clefts (Taglicht 1984, Wekker and Haegeman 1985, Guéron 1990, etc.). For instance, one NP or one PP is clefted in the focus position in (1a) and (1b), respectively:

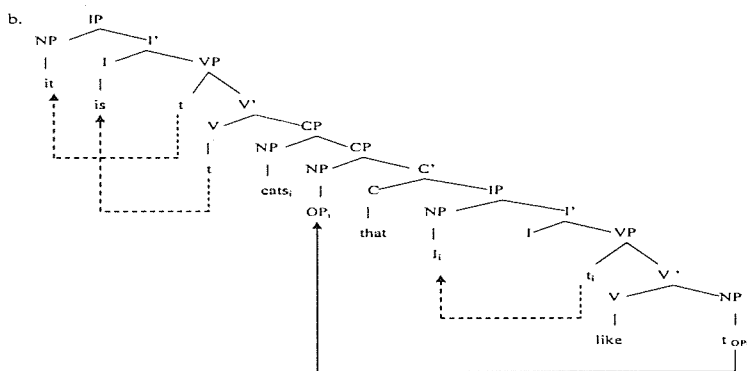
- (1) a. It is cats that I really like.
b. It was in the shop that I met Mary.

On the other hand, (2a,b), which have two elements in the focus position, are ungrammatical:

- (2) a. *It was a book with his credit card that John bought.
b. *It was her room to find a picture that Mary cleaned.

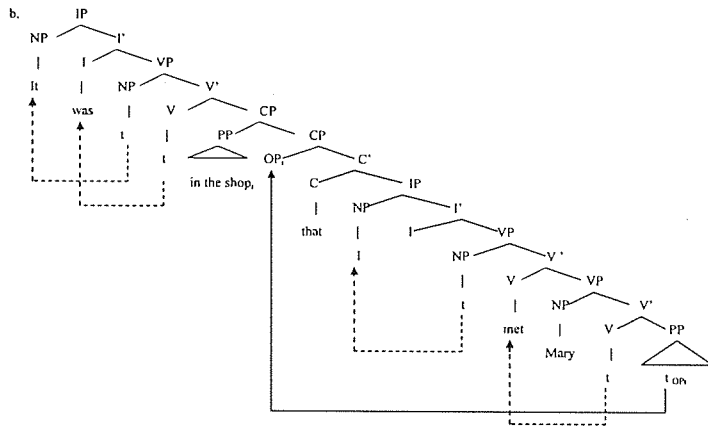
To my knowledge, the first detailed analysis of English clefts is given by Chomsky (1977). Chomsky (1977) proposes that a null operator corresponding to the focused element (*cats* in (1a) and *in the shop* in (1b)) undergoes movement to CP-Spec, as represented in (3) and (4), respectively¹⁾:

- (3) a. It is [_{CP} cats_i [_{CP} OP_i [_{C'} that I like t_{OPi}]]].



¹⁾ This study follows Larson's (1988) VP structure. The reason will be clarified in Section 4. See Larson (1988) for more details.

(4) a. It was [_{CP} in the shop_i [_{CP} OP_i [_{C'} that I met Mary t_{OPi}]]].



Regarding the number of operator/relative pronouns in CP-Spec, Chomsky (1977), Fukui (1986, 1995) and Takeda (1999) propose that only one element can occur in CP-Spec. For example, according to Fukui, there is a general constraint (5):

(5) If X, a functional head agrees with Y, then there is no Z such that $Z \neq Y$ and X agrees with Z.

(Fukui 1995: 66)

The constraint in (5) dictates that the number of operator/relative pronouns in CP-Spec must be only one. The sentences in (2a,b), which are repeated in (6a,b), violate the constraint (5). These sentences have two operators in CP-Spec.

(6) a. *It was [_{CP} a book_i with his credit card_i [_{CP} OP_i OP_j [_{C'} that John bought t_i t_j]]]. (=2a)

b. *It was [_{CP} her room_i to find a picture_i [_{CP} OP_i OP_j [_{C'} that Mary cleaned t_i t_j]]]. (=2b)

From the observation above, English seems to allow only one element in the focus position. However, there are grammatical cases of clefts with multiple foci.

Delahunty (1981) and Nakajima (1994) observe that English clefts do in fact allow multiple foci in certain situations. Consider the following:

(7) It was at Knock a century ago that the Virgin appeared to local peasants.

<*L.A. Times*> (Delahunty 1981: 91)

In (7), the locative phrase *at Knock* and the temporal phrase *a century ago* occur in the focus position. (7) shows that a locative phrase and a temporal phrase can co-occur in the focus position as multiple foci.

Other elements can also occur in the focus position as multiple foci. Let us examine (8):

(8) ? It was a book to Mary that John gave.

(Nakajima 1994)

The grammaticality of (8) indicates that the direct object *a book* and the goal phrase *to Mary* can also occur as multiple foci.

These facts demonstrate that English clefts allow multiple foci in certain situations. This paper aims to investigate the constraints on English clefts with multiple foci and the syntactic mechanism which generates this structure.

The organization of this paper is as follows: Section 2 will clarify the acceptable and unacceptable combinations for English clefts with multiple foci. Section 3 will focus on the discussion of the syntactic mechanism of English clefts with multiple foci, on the basis of Suzuki and Kitao's (2003) absorption-based analysis. In Section 4, I will propose a further modification of Suzuki and Kitao (2003) and show that this modification can solve the problem raised in their analysis. Section 5 concludes this paper.

2 Acceptable Combinations and Unacceptable Combinations for English Clefts with Multiple Foci

Based on the previous studies, this section classifies acceptable combinations of elements for clefts with multiple foci in English. The acceptable combinations to occur in the focus position are 'direct object+goal phrase/temporal phrase/locative phrase' and 'goal phrase+temporal phrase' and 'goal phrase+temporal phrase/locative phrase'. Unacceptable combinations are 'direct object+reason phrase/manner phrase/instrumental phrase'.

Acceptable pairs:

(9) direct object + goal phrase

It was Mary to John that I introduced.

(10) direct object + temporal phrase

It was my car two years ago that I sold to Tom.

(11) direct object + locative phrase

It was a handkerchief in front of the station that I dropped.

(12) goal phrase + temporal phrase

It was to me yesterday that Tom sent flowers.

(13) goal phrase + locative phrase

It was to me at school that Kate showed the picture.

Unacceptable pairs:

(14) direct object + instrumental phrase

* It was sushi with chopsticks that I ate.

(15) direct object + reason phrase

* It was English to have a nice job that I studied.

(16) direct object + manner phrase

a. * It was Kate by car that I visited.

b. * It was this problem this way that I solved quickly.

The contrast of grammaticality illustrated between (9)-(13) and (14)-(16) implies that properties of NPs and PPs in the focus position are crucial.

3 Theoretical Model for Multiple Foci in English Clefts

3. 1 Referential Phrase / Non-Referential Phrase

In Section 2, it was demonstrated that elements occurring in the focus position as multiple foci are restricted but possible in English cleft sentences. In this subsection, I will investigate what kind of restrictions is imposed on English clefts with multiple foci.

Suzuki and Kitao (2003) suggest that the properties of NPs and PPs are closely related to the possibility of the occurrence of multiple elements in English cleft sentences. Let us consider sentences having acceptable pairs in the focus position, which we have seen in Section 2.

Elements which can be generated as multiple foci are direct objects, temporal phrases, locative phrases and goal phrases. Suzuki and Kitao (2003) argue that these elements are

classified into referential phrases within the framework of Rizzi (1990) and Cinque (1990).

Rizzi (1990) suggests that locative and temporal phrases show extraction behavior different from manner and reason phrases. Rizzi (1990) presents Italian examples, but he also argues that this is consistent across languages. Let us consider (17) and (18):

(17) a. (locative phrase)

? In che negozio non ti ricordi che cosa abbiamo comprato?

'In what shop don't you remember what we bought? '

b. (temporal phrase)

?? A che ora non ti ricordi che cosa abbiamo detto?

'At what time don't you remember what we said? '

(18) a. (manner phrase)

* In che modo non ti ricordi che cosa abbiamo detto?

'In what way don't you remember what we said?

b. (reason phrase)

* Per che ragione non ti ricordi che cosa abbiamo detto?

'For what reason don't you remember what we said? ' (Rizzi 1990: 91)

As shown in (17a,b), a locative phrase or a temporal phrase can be extracted out of a *Wh*-island although a temporal phrase is considered less grammatical than a locative phrase. On the other hand, a manner phrase or a reason phrase cannot be extracted as shown in (18a,b).

Rizzi (1990) suggests that this difference in extractability is due to the presence or absence of selection by the head containing the event specification. Murasugi and Saito (1992) also argue that this contrast is related with the event predicate associated with V or INFL. They suggest that a temporal and a locative phrase are arguments of INFL and the event predicate associated with V. If we follow their insights, then we can predict that since events take place in time and space, then locative and temporal elements are licensed by INFL or the event predicate associated with V, and a θ -role which is related with the event predicate is given to their arguments. On the other hand, reason and manner phrases are not arguments of INFL or the event predicate associated with V, because events do not take place in reason and manner phrases. Because these phrases are not arguments of INFL or V, they cannot receive θ -role concerned with the event predication contrary to temporal and

locative phrases.

Rizzi (1990) and Cinque (1990) furthermore propose that a phrase receiving a θ -role referring to the participants in the event described by the predicate is *referential* and a phrase which does not receive a θ -role is *non-referential*.

Given Murasugi and Saito (1992), Rizzi (1990), Cinque (1990), and Suzuki and Kitao (2003) posit that referentiality is determined by the relation with event predicates. They argue that phrases which are associated with event predicates, namely V or INFL, are assigned an “event” θ -role by an event predicate. Hence it is concluded that the phrases carrying an event θ -role are referential. On the other hand, phrases which cannot receive an event θ -role are non-referential.

3. 2 Absorption Operation

From the observation above the constraint on multiple foci can be explained by Watanabe’s (2000) proposal of absorption model. Watanabe (2000) argues that the quantificational feature movement is triggered by feature strength, characterized as in (19):

(19) Strong features split formal features from PF features in a local content.

(Watanabe 2000: 259)

According to Watanabe, a local content in (19) means either the checking configuration or the structure within a single head. (19) requires that formal features are separated PF features in a local content. This requirement can explain the ambiguity of scope readings as in (20). A question like (20) in English allows three kinds of answers: the list answer, the functional answer and the individual answer.

(20) Who does everyone admire?

- | | |
|-----------------------------------|---------------------|
| a. Mary admires Smith, John Jones | (list answer) |
| b. his mother | (functional answer) |
| c. Professor Smith | (individual answer) |

On Watanabe’s assumptions, the list answer of (20a) is licensed by the absorption model. He posits that a *wh*-phrase contains a *wh*-feature and an existential quantificational feature as indicated in (21) and the interrogative complementizer needs to be associated with

an existential quantificational feature as well as a *wh*-feature:

(21) *wh*-phrase = *wh* + indefinite + [\pm human]

Regarding the licensing of list answer such as (20a), Watanabe suggests that the quantificational feature of *who* is absorbed into the quantificational feature of *everyone* as illustrated in (22):

(22) does everyone admire who?

F quant F{Quant wh }

The list answer is possible only by the absorption of two quantificational features. The important point of absorption is that the absorption operation is carried out on the condition that features of the characteristics of the two elements are matched. Unless absorption is successfully carried out, list answers cannot be obtained. However, according to Aoun and Li's (1993) observation, the adjunct *why* does not induce a list answer in English. The following examples allow a functional answer only.

- (23) a. Why did everyone hit him?
 b. Why did he hit everyone?

Watanabe (2000) suggests that absorption is impossible with the adjunct *why* because the adjunct *why* lacks an existential quantificational feature. Since absorption is not carried out, a list answer is not produced in the above examples.

3. 3 Absorption in Multiple Foci in English Clefts

In this section, I will propose that Watanabe's (2000) absorption is necessary in the formation of multiple foci in English clefts and that absorption enables multiple foci to occupy CP-Spec, in which only one element can occur.

Given that only one element can occupy CP-Spec (Fukui 1986, 1995, Takeda 1999 etc.),

multiple focus elements cannot be moved to CP-Spec. However, multiple foci can occur in the focus position as observed in Section 2. In order to explain this fact, this study will argue, on the basis of Watanabe (2000), that multiple foci include feature movement and thus multiple foci can occur in CP-Spec.

This study suggests that pure feature movement is a component in the formation of multiple foci in cleft sentences and also argues that the second focused element is absorbed into the preceding focus element through the absorption mechanism proposed by Watanabe (2000). The second focus element has a strong feature, because it has to be interpreted as a focused phrase. This study assumes that the first focused element becomes an “attractor” and the second focused element, an attractee, undergoes absorption into the first focused element.

As mentioned in the previous section, the operation of absorption has a restriction. The host of absorption and the absorbed element must have the same feature. Based on the observations that only referential phrases can be focused, we can obtain the following generalization:

(24) Absorption is successfully carried out between referential features.

This study claims that referentiality (Rizzi 1990, Cinque 1990) plays a crucial role in the absorption of multiple foci. Referential NPs/PPs can be absorbed into the other referential NP/PP, but into a non-referential NP/PP, and that non-referential NPs/PPs cannot undergo absorption into referential NPs/PPs.

3. 3. 1 Absorption of Referential NPs/PPs

On the basis of the generalization (24), let us examine multiple foci in English cleft sentences discussed in Section 2 again. As mentioned in Section 2, a direct object and a temporal/locative phrase can occur in the focus position in English clefts as multiple foci.

(25) DO and temporal/locative phrase

- a. It was [_{CP} a handkerchief in front of the station [_{CP}[absorbed element]][_C that John found *OP_i* *OP_j*]].
- b. It was [_{CP} my car two years ago [_{CP}[absorbed element]][_C that I sold *OP_i* to Tom *OP_j*]].

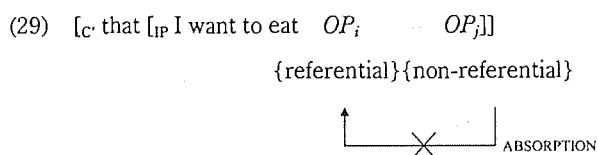
3. 3. 2 Absorption of Non-Referential NPs/PPs

Next let us consider clefts which do not allow multiple foci. A direct object and an instrumental phrase cannot make multiple clefted strings in the focus position.

(28) DO and instrumental phrase

- a. * It is sushi with chopsticks that I want to eat.
- b. * It was this desk with his credit card that John bought.

In (28a), the direct object *sushi* has an event θ -role as mentioned in Section 3.1, and hence it is classified as a referential phrase. However, the instrumental phrase *with chopsticks* is classified as a non-referential phrase, because it cannot receive an event θ -role. The instrumental phrase *with chopsticks*, therefore, cannot be absorbed into the direct object *sushi*. As a result, multiple features move into CP-Spec, but this is blocked by the constraint (5) which restricts the number of operators in CP-Spec. Therefore, one of the features cannot end up in CP-Spec and it fails to be licensed. (29) schematizes this:



* OP_i = sushi, OP_j = with chopsticks

→ * It is sushi with chopsticks that I want to eat.

To sum up, the presence or absence of licensing by INFL or V is crucial to the absorption operation. Only when a phrase receives an event θ -role due to licensing by INFL or V, it can undergo the absorption operation.

4 Directionality of the Absorption Operation

In the previous section, I explained on the basis of Suzuki and Kitao (2003) that multiple referential phrases can be interpreted as one element by absorption of referential features. However, there remains a problem on the mechanism presented above. In this section, let us consider the problem with the mechanism, and I suggest a solution to the

problem in Suzuki and Kitao (2003).

In (30a,b), since the focused elements are referential, absorption of the referential features is successfully carried out.

(30) a. It was the garden to Kate that I showed.

b. It was English to me that Tom taught.

However, (31) is problematic to Suzuki and Kitao's (2003) absorption model.

(31) a.* It was to Kate the garden that I showed.

b.* It was to me English that Tom taught.

Suzuki and Kitao's (2003) mechanism incorrectly produces these sentences. Since (31a,b) also have referential phrases in the focus position, the absorption operation should generate acceptable clefts with multiple foci. However, contrary to the prediction, (31) is ungrammatical.

Now let us keep our eyes on the fact that the non-clefted counterparts of (31a,b) are also ungrammatical. (32a) and (33a) are grammatical, but when the goal phrase precedes the direct object, they become ungrammatical, as (32b) and (33b) show:

(32) a. I showed the garden to Kate.

b. *I showed to Kate the garden.

(33) a. Tom teaches English to me.

b. *Tom teaches to me English.

This asymmetry suggests that the ungrammaticality of (31), (32b) and (33b) are related to word order of the direct object and the goal phrase.

Larson (1988) analyzes the asymmetry between the direct object and the indirect object based on the c-command relation between these two phrases. Larson (1988) points out that there exist asymmetries in the behavior of the two objects following the observation by Barss and Lasnik (1986).

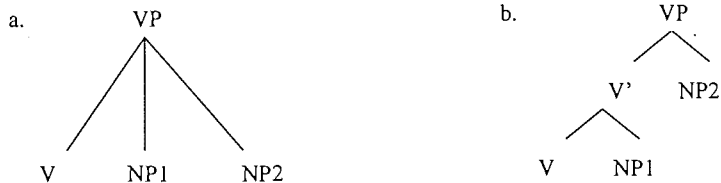
- (34) a. I showed Mary herself.
 *I showed herself Mary.
 b. I showed each man the other's socks.
 *I showed the other's friend each man.
 c. I showed no one anything.
 *I showed anyone nothing.

(Larson 1988: 336-7)

It has been assumed that all these phenomena involve the c-command relation between the two objects. For example, reflexives and reciprocals must be c-commanded by their antecedents. (34a) shows this asymmetry regarding the licensing of anaphors. In (34b), double objects show asymmetries with respect to the *each other* construction. This construction has a reciprocal reading only when the *each*-phrase c-commands the *other*-phrase. Negative polarity items in (34c) must also occur in the c-command domain of negation or a negative quantifier.

Based on these asymmetries, Larson claims that in a *verb-NP-NP* construction, the first NP must c-command the second NP, but the second NP cannot c-command the first NP, since it is assumed that those phenomena which are presented in (34a-c) involve c-command. Therefore, Larson casts doubt on the validity of the structures previously assumed for double objects shown in (35a,b):

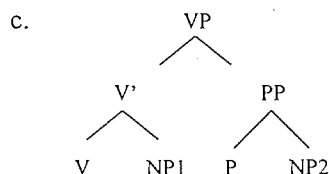
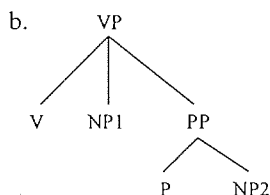
(35)



Under a definition of c-command based on first branching nodes (Reinhart 1979), NP1 and NP2 mutually c-command each other in (35a), while NP2 asymmetrically c-commands NP1 in (35b). Under Aoun and Sportiche's (1983) definition of c-command based on maximal projections, NP1 and NP2' mutually c-command each other in both (35a,b) because they are within the maximal projection of VP. However, in the case of sentences which have a goal

phrase, (35a,b) does not cause any problems.

(36) a. Mary teaches English to me.

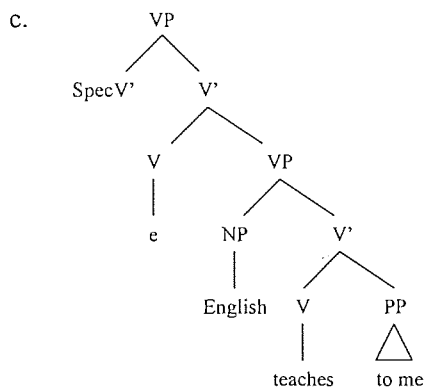


In (36b), NP1 asymmetrically c-commands NP2 under the definition of c-command proposed by Reinhart (1979), because NP2 is dominated by a branching node (PP) that does not dominate NP1. In (36c), NP1 asymmetrically c-commands NP2 under the definition of c-command given by Aoun and Sportiche (1983), because NP2 is contained in a maximal projection (PP) that does not contain NP1. Larson (1988) then proposed an account, which assumes two VP shells and movement into the upper VP shell, results in NP1's asymmetrically c-commanding of NP2 both in double object constructions and in the goal phrase constructions.

In Larson's account, both the double object construction and the goal phrase construction have the same D-structure as follows:

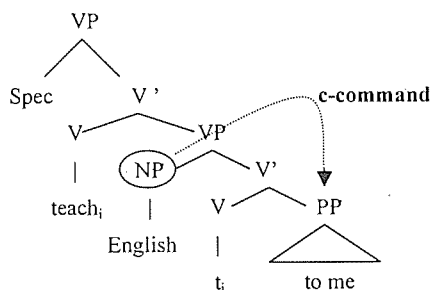
(37) a. Mary teaches me English.

b. Mary teaches English to me.



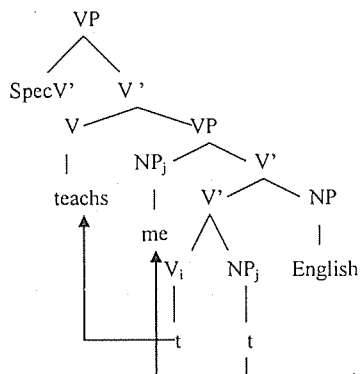
In this structure, the verb *teaches* takes the complement *to me*, forming a small predicate *teaches to me*. This small predicate is a predication of the 'inner subject' *English*, forming a VP *English teaches to me*. The surface form of a goal phrase structure is derived by raising the lower V into the empty upper V position to assign Case to the inner subject NP *English*.

(38)



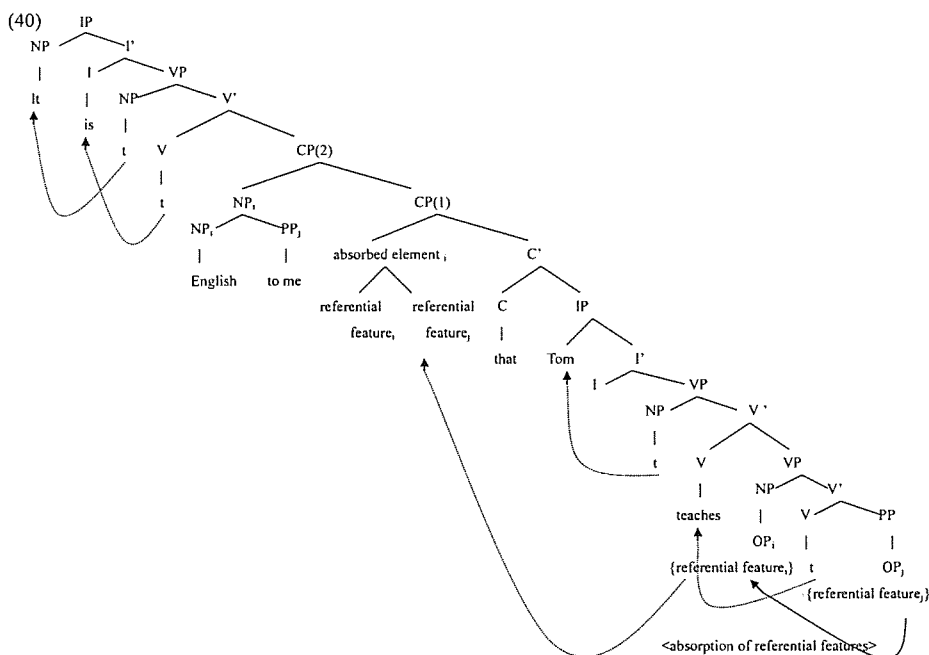
Regarding the double object construction, Larson argued that it is transformationally derived from the D-structure (37c). First, the preposition *to* governed by the verb *teaches* is absorbed, and thus no Case can be assigned to the indirect object. Next, the θ -role assigned to the subject of VP (the direct object role) undergoes demotion, making this position nonthematic and hence empty. Since the direct object receives its θ -role from V' under Argument Demotion,²⁾ this θ -role must be assigned to a V' adjunct. Hence the direct object is realized as a V' adjunct. The indirect object then undergoes NP movement to the VP subject position, and the verb *teaches* raises into V-head position, assigning Case rightward to the VP subject (the original indirect object). The derivation is shown as follows:

(39)



The structural relations arising from Dative Shift as described above thus directly account for the asymmetries observed in the double object and the goal phrase constructions.

Adapting Larson's VP structure which is discussed above, I propose that the c-commanding element is the host for the absorption operation in clefts with multiple foci.³⁾ Based on this structure, let us consider a cleft with multiple foci again.



The referential feature_i of OP_i corresponding to the direct object *English* c-commands the referential feature_j of OP_j corresponding to the goal phrase *to me*. Assuming that the c-commanding element is the host for the absorption operation, the c-commanded referential

²⁾ Argument Demotion

If a is a theta role assigned by Xⁱ, then a may be assigned (up to optionality) to an adjunct of Xⁱ.

(Larson 1988: 352)

³⁾ One of the reviewers pointed out the possibility of mutual c-command of multiple foci. Given that (ii) is derived from (i), the grammaticality of (ii) indicates that the temporal phrase and the locative phrase c-command each other.

(i) It was at Knock a century ago that the Virgin appeared to local peasants.

(ii) It was a century ago at Knock that the Virgin appeared to local peasants.

This study, however, assumes that (ii) is not derived from (i). The D-structure of (ii) is different from that of (i) in the analysis presented here. I assume that the first focus element always c-commands the second focus element at D-structure. Hence *at Knock* c-commands *a century ago* in (i), but *a century ago* c-commands *at Knock* in (ii). Future research is needed on this issue.

feature_i is absorbed by the referential feature_i. Consequently, the host feature and the absorbed feature constitute one element that has the index of the host, referential feature_i, and this constituent then moves up into CP(1)-Spec. Note that the absorption operation is not the overt category movement. The point is which element attracts as the host for absorption, and the index of the absorbed element must bear the index of the host.

Regarding CP(2)-Spec, the direct object *English* is also the host of the goal phrase *to me*, and these two elements constitute one element. In order for this to happen, the index of the constituent must be the same as that of the direct object. That is, the absorbed features in CP(1)-Spec are actualized in the clefted string because the overt focused elements and the absorbed features in CP-Spec are under identified with each other (Chomsky 1977).

To sum up, by proposing the condition that the c-commanding element must be the host for the absorption operation following the insights of Larson (1988), it is correctly predicted that the direct object always precedes the other referential phrases in the focus position.

5 Concluding Remarks

In this paper, first I presented the idea that English clefts do not allow multiple foci in the focus position because of the restriction regarding CP-Spec. I then discussed some previous studies which showed that it is possible for English clefts to have multiple foci under certain conditions. Regarding this point, Suzuki and Kitao (2003) suggest that the distinction between referential phrases and non-referential phrases plays a crucial role in the derivation of clefts with multiple foci. Based on their observations, I proposed that the referentiality of the focused elements determines whether the cleft sentence is allowed to have multiple foci. That is, if two referential phrases are combined, the absorption operation is carried out and a cleft with multiple foci is obtained. However, if one of the focused elements is a non-referential phrase, the absorption operation is not carried out and the sentence becomes ungrammatical. I also proposed that c-command relation between the two focus elements is necessary for the derivation of clefts with multiple foci.

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